

# PCT

09/18078

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>137-1103/SG</b>	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. <b>PCT/EP 97/ 02443</b>	International filing date (day/month/year) <b>13/05/1997</b>	(Earliest) Priority Date (day/month/year) <b>14/05/1996</b>
Applicant <b>NOVARTIS AG et al.</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 5 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. ☐ Certain claims were found unsearchable (see Box I).

2. ☐ Unity of invention is lacking (see Box II).

3. ☒ The international application contains disclosure of a nucleotide and/or amino acid sequence listing and the international search was carried out on the basis of the sequence listing

☒ filed with the international application.

☐ furnished by the applicant separately from the international application,

☐ but not accompanied by a statement to the effect that it did not include matter going beyond the disclosure in the international application as filed.

☐ Transcribed by this Authority

4. With regard to the title, ☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this International Search Report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is:

Figure No.            ☐ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

☒ None of the figures.

## INTERNATIONAL SEARCH REPORT

International Application No  
PCT/EP 97/02443

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 6 C12N15/82 C12N9/12 C07K14/415 A01H5/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 C12N A01H C07K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	HANNA, W.W. AND BASHAW, E.C.: "APOMIXIS: ITS IDENTIFICATION AND USE IN PLANT BREEDING" CROP SCIENCE, vol. 27, November 1987, pages 1136-1139, XP002040859 see page 1138, left-hand column --- -/--	1,2



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

## \* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

17 September 1997

Date of mailing of the international search report

30.09.97

Name and mailing address of the ISA

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	KOLTUNOW, A.M., ET AL . : "APOMIXIS: MOLECULAR STRATEGIES FOR THE GENERATION OF GENETICALLY IDENTICAL SEEDS WITHOUT FERTILIZATION" PLANT PHYSIOLOGY, vol. 108, 1995, pages 1345-1352, XP002040860	1,2,16, 35-41
Y	page 1345, right column, line 1-7; page 1347, right column; page 1348, right column, line 35-50; page 1349, 1350, 1351, left column, line 18-21; Fig. 2 + 3	9
X	--- KOLTUNOW, A.M.: "APOMIXIS: EMBRYO SACS AND EMBRYOS FORMED WITHOUT MEIOSIS OR FERTILIZATION IN OVULES" THE PLANT CELL, vol. 5, October 1993, pages 1425-1437, XP002040861	1,2,16, 35-41
Y	see the whole document	9
X	--- WO 89 00810 A (MAXELL HYBRIDS INC) 9 February 1989	1,2,16, 35-41
Y	pages 7,15,29-35	9
X	--- MARTIN, G.B.M., ET AL . : "A MEMBER OF THE TOMATO Pto GENE FAMILY CONFERS SENSITIVITY TO FENTHION RESULTING IN RAPID CELL DEATH" THE PLANT CELL, vol. 6, 1994, pages 1543-1552, XP002040862	21-28, 30,32, 34-39
Y	page 1546; Fig.4	9
X	--- SONG, W-Y, ET AL . : "A RECEPTOR KINASE-LIKE PROTEIN ENCODED BY THE RICE DISEASE RESISTANCE GENE , Xa21" SCIENCE, vol. 270, 15 December 1995, pages 1804-1806, XP002040863 see the whole document	24,30, 32,35-39
X	--- NEWMAN, T., ET AL . : "GENES GALORE: A SUMMARY OF METHODS FOR ACCESSING RESULTS FROM LARGE-SCALE PARTIAL SEQUEUNCING OF ANONYMOUS ARABIDOPSIS cDNA CLONES" PLANT PHYSIOLOGY, vol. 106, 1994, pages 1241-1255, XP000571449 see the whole document --- -/--	27,28

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	NEWMAN, T., ET AL. : "GENES GALORE : A SUMMARY OF METHODS FOR ASSESSING RESULTS FROM LARGE-SCALE PARTIAL SEQUENCING OF ANONYMOUS ARABIDOPSIS cDNA CLONES" EMBL SEQUENCE DATA LIBRARY, 30 August 1993, HEIDELBERG, GERMANY, XP002040864 ACCESSION No. T04109 ---	27,28
X	NEWMAN, T., ET AL. : "GENES GALORE: A SUMMARY OF METHODS FOR ASSESSING RESULTS FROM LARGE-SCALE PARTIAL SEQUENCING OF ANONYMOUS ARABIDOPSIS cDNA CLONES" EMBL SEQUENCE DATA LIBRARY, 27 July 1995, HEIDELBERG, GERMANY, XP002040865 ACCESSION No. H37195 ---	28
X	NEWMAN, T. , ET AL. : "GENES GALORE: A SUMMARY OF METHODS FOR ASSESSING RESULTS FROM LARGE-SCALE PARTIAL SEQUENCING OF ANONYMOUS ARABIDOPSIS cDNA CLONES" EMBL SEQUENCE DATA LIBRARY, 27 July 1995, HEIDELBERG, GERMANY, XP002040866 ACCESSION No. H36800 ---	28
X	DESPREZ, T. , ET AL. : "THE ARABIDOPSIS THALIANA TRANSCRIBED GENOME: THE GDR cDNA PROGRAM" EMBL SEQUENCE DATA LIBRARY, 25 June 1994, HEIDELBERG, GERMANY, XP002040867 ACCESSION No. Z34606 ---	28
A	DECROOCQ-FERRANT, V., ET AL.: "PETUNIA HYBRIDA HOMOLOGUES OF shaggy/zeste-white 3 EXPRESSED IN FEMALE AND MALE REPRODUCTIVE ORGANS" THE PLANT JOURNAL, vol. 7, no. 6, 1995, pages 897-911, XP002040868 see page 907, right-hand column ---	1-46
P,X	SCHMIDT, E.D.L., ET AL. : "A LEUCINE-RICH REPEAT CONTAINING RECEPTOR-LIKE KINASE MARKS SOMATIC PLANT CELLS COMPETENT TO FORM EMBRYOS" DEVELOPMENT, vol. 124, no. 10, 1997, pages 2049-2062, XP002040869 see the whole document --- -/--	16-18, 21-32, 34-37, 39,45

## INTERNATIONAL SEARCH REPORT

International Application No  
PCT/EP 97/02443

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	WO 97 11167 A (US GOVERNMENT) 27 March 1997 page 1,5,21,24 ---	1,2,41
P,X	WO 97 10704 A (US GOVERNMENT) 27 March 1997 see the whole document -----	1,2,41

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 97/02443

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 8900810 A	09-02-89	AU 629796 B	15-10-92
		AU 2255288 A	01-03-89
		EP 0329736 A	30-08-89
		CN 1040123 A	07-03-90
		JP 5503836 T	24-06-93
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WO 9711167 A	27-03-97	AU 7367396 A	09-04-97
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WO 9710704 A	27-03-97	AU 7367496 A	09-04-97
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